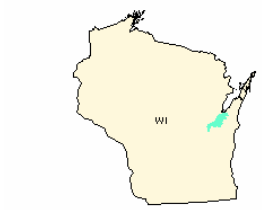
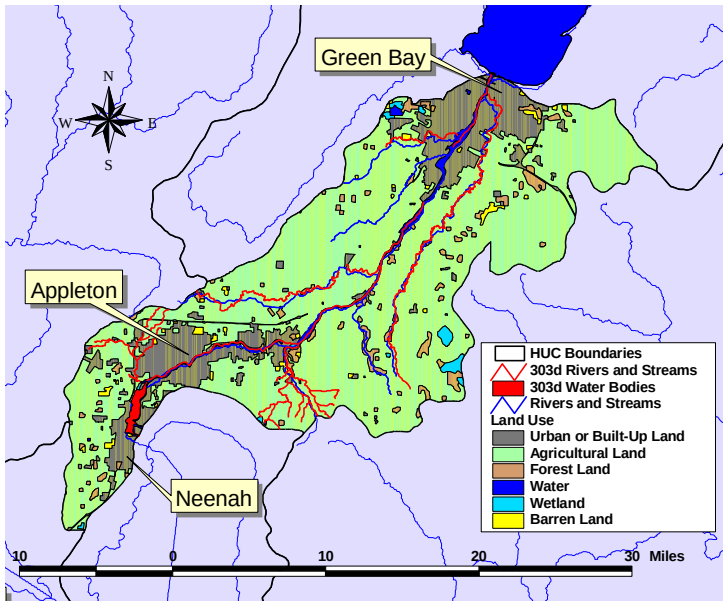


Lower Fox River Watershed

Hydrologic Unit Code: 04030204



Watershed Contacts

- The University of Wisconsin-Extension – http://clean-water.uwex.edu/foxwolf/
- Fox Wolf Watershed Alliance http://www.fwb2k.org/
- Lake Michigan Forum - http://www.lkmichiganforum.org/
- Bob Behrens, the Lower Fox River Water Basin Team Leader - behrer@dnr.state.wi.us

For more information, see the Wisconsin Department of Natural Resources' "Wisconsin's Basins" website at http://dnr.wi.gov/org/gmu/gmu.html and the USEPA "Surf Your Watershed" website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04030204

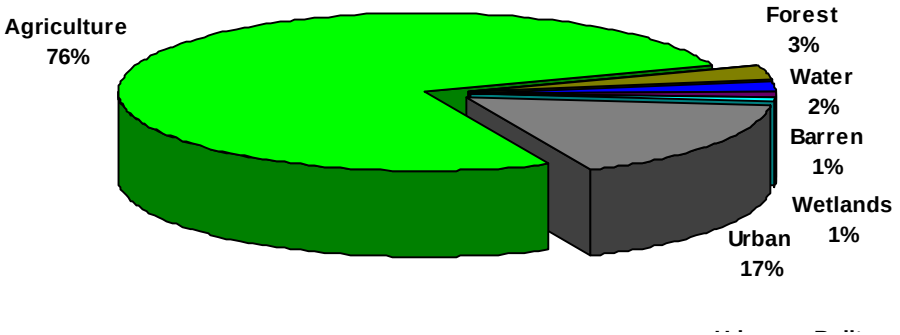
Watershed Overview / Ecology / Biodiversity

- Recreational highlights include wildlife watching, hiking, fishing, hunting, bicycling, horseback riding, snowmobiling, skiing, camping, picnicking, and water sports.
- The Lower Fox River originates at the outlet of Lake Winnebago and flows northeast for 39 miles where it empties into the bay of Green Bay.
- With an average daily flow of 4,320 cubic feet of water per second, the Lower Fox River is characterized as a large, non-wadeable, low-transparency river interrupted by a series of locks and dams.
- Much of the drinking water in the basin is derived from groundwater. However, the City of Green Bay receives its drinking water from Lake Michigan. Various basin communities are reviewing alternatives for drinking water as the basin's aquifer declines.
- Numerous endangered, threatened and otherwise rare species exist in the basin, including the endangered Barn Owl and the threatened Small White Lady's Slipper.
- The main stem of the Fox River in the Lower Fox River Basin is fragmented by a series of 17 locks and 12 dams that were built in the mid 1800's to aid navigation or produce power.
- The Oneida Reservation, established by an 1838 Treaty, is in the basin. It is participating in the State's priority watershed program and the WTCAC.
- Wildlife include songbirds, white- tailed deer, rabbits, red fox, coyote, pheasant, Hungarian partridge, squirrel, skunk, raccoon, upland game birds, waterfowl, bats, small mammals and invertebrates, reptiles, amphibians and many others.
- The Lower Fox River Basin encompasses three of the state's ecological landscapes: Northern Lake Michigan Coastal, Southeast Glacial Plains, and Northeast Plains.
- Wildlife diversity and populations are affected by the variability of habitats within the basin. The two main terrestrial habitats within the basin are open land and woodland. Aquatic habitats within the area are wetland, riverine, and lacustrine (lakes or lake- like).
- Open land consists of cropland, orchards, pastures, and meadows, and comprises the largest type of habitat within 0.5 mile of the Lower Fox River. Woodland habitat includes hardwood and conifer forest land and wooded lots with an associated understory of shrubs, grasses, legumes, and herbaceous plants.

Watershed Activities / Concerns / Priorities

- The Wisconsin Department of Natural Resources manages the watershed as part of the Lower Fox River management area that also includes a portion of the Duck-Pensaukee watershed. Environmental concerns include:
  - Habitat loss, deterioration and fragmentation from rapid development and conversion of rural lands.
  - Water quality problems from contaminated sediment, runoff in urban and agricultural areas, floodplain development and overuse of groundwater supplies (with groundwater quality implications).
  - Heavy recreational use of resources, such as lakes and shorelines;
  - Exotic species are a continuing emerging problem. Plant species such as reed canary grass, purple loosestrife, buckthorn, garlic mustard and Eurasian water milfoil quickly out-compete native species and affect ecosystem balance. Zebra mussels and rusty crayfish are spreading, disrupting stream and lake ecology.
  - Monitoring of wildlife populations, water quality, and ecosystem function are needed to understand the status and trends of resources.
- The main priorities identified in the integrated management plan include:
  - Increase and protect critical habitats and habitat integrity;
  - Sustain a diverse, balanced and healthy ecosystem;
  - Improve surface water and groundwater quality and identify water conservation opportunities;
  - Establish a self-sustaining, balanced, and diversified edible fish community;
  - Manage resources for multiple users;
  - Strengthen program support and enforcement initiatives; and
  - Improve educational programs.

Land Use
Lower Fox River Watershed



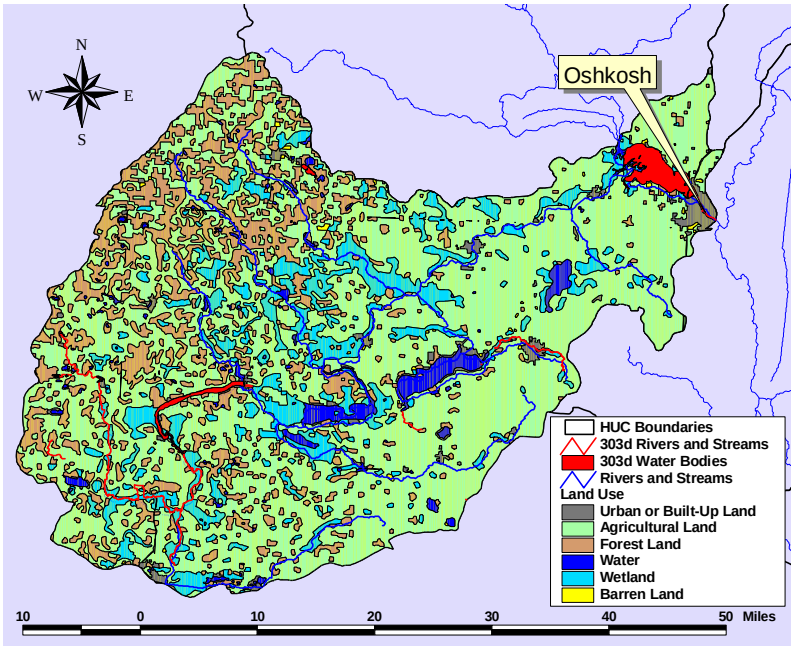
Impaired (303d) Waters

Waterbody Name	Impairment	TMDL Submittal
Apple Creek *	Nutrients	NA
	Flow Alteration(S)	
	Loss Of Instream Habitat	
	Organic Enrichment/Low Dissolved Oxygen	
	Sediment	
	Temperature	
Apple Creek *	Nutrients	NA
	Flow Alteration(S)	
	Loss Of Instream Habitat	
	Organic Enrichment/Low Dissolved Oxygen	
	Sediment	
	Temperature	
Dutchman Creek	Nutrients	NA
	Ammonia	
East River * *	Nutrients	NA
	Turbidity	
	Fish Consumption Advisories (PCBs)	
	Fish Kills	
	Loss Of Instream Habitat	
	Organic Enrichment/Low Dissolved Oxygen	
	Sediment	
	Toxics	
East River **	Nutrients	NA
	Turbidity	
	Fish Kills	
	Loss Of Instream Habitat	
	Organic Enrichment/Low Dissolved Oxygen	
	Sediment	
Fox River	Fish Consumption Advisories (PCBs)	NA
	Organic Enrichment/Low Dissolved Oxygen	
Kankapot Creek	Loss Of Instream Habitat	NA
Mud Creek	Loss Of Instream Habitat	NA
Neenah Slough	Fish Consumption Advisories (PCBs)	NA
	Organic Enrichment/Low Dissolved Oxygen	
Plum Creek	Loss Of Instream Habitat	NA
	Temperature	
Winnebago Lake	Nutrients	NA
	Fish Consumption Advisories (Mercury)	
	Fish Consumption Advisories (PCBs)	
	Organic Enrichment/Low Dissolved Oxygen	
	Sediment	

Upper Fox River Watershed

Hydrologic Unit Code: 04030201

For more information, see the Wisconsin Department of Natural Resources' "Wisconsin's Basins" website at http://dnr.wi.gov/org/gmu/gmu.html and the USEPA "Surf Your Watershed" website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04030201http://cfpub.epa.gov/surf/huc.cfm?huc_code=04030201



Watershed Contacts

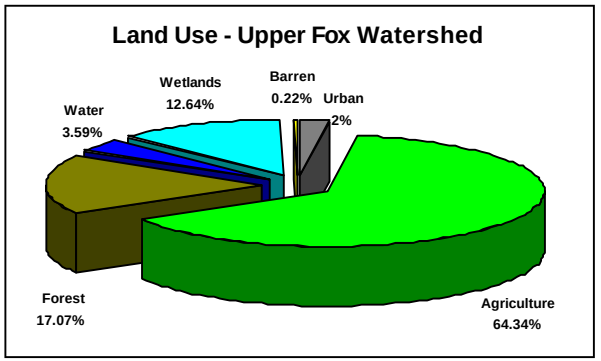
- The University of Wisconsin-Extension – http://clean-water.uwex.edu/foxwolf/
- Fox Wolf Watershed Alliance http://www.fwb2k.org/
- Lake Michigan Forum - http://www.lkmichiganforum.org/
- Rob McLennan, the Upper Fox River Water Basin Team Leader - Robin.McLennan@dnr.state.wi.us

Watershed Overview / Ecology / Biodiversity

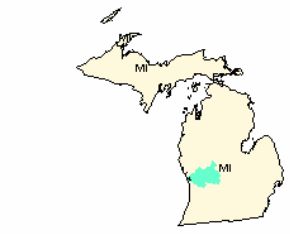
- The Upper Fox River basin is 1640 square miles, with 48 square miles of inland lakes.
- The watershed's primary land use is agricultural at 65 percent. Forests and wetlands provide significant land cover at 17 and 12 percent, respectively.
- Numerous endangered, threatened and otherwise rare species exist in the basin, including the threatened White Lady's Slipper, a species that needs fens and calcareous wet prairies, and Forster's Tern, which needs large marshes, estuaries and lake islands.
- Over 10% of the basin area is wetland greater than 40 acres in size, accounting for 145,428 acres. The total wetland area is actually much greater, as mapping identifies wetlands as small as 2 acres in size.
- There are over 55,678 acres of major public lands in the Upper Fox management basin including 51,311 acres of state wildlife, fisheries and park lands (not including the 11 state natural areas in the basin) and 4,367 acres of U.S. Fish and Wildlife Service wildlife refuge and waterfowl production acres.
- The Basin includes the Central Sand Ridges, Southeast Glacial Plains, and a small portion of the Central Sand Plains Ecological Landscapes.
- Most of the basin's cold water trout streams are located in the western portion of the basin near the Sandy Ridges ecosystem. Warm water rivers, streams and lakes support various game and non- game species including large and small mouth bass, walleye, northern pike, catfish and sturgeon.
- Common woodland wildlife include white- tailed deer, turkey, ruffed grouse; upland/ grassland wildlife includes ring- necked pheasant, non- game songbirds (vesper sparrow, bobolink (right), meadowlark); grassland nesting waterfowl include mallards and blue- winged teal. Wetland species include various waterfowl, amphibians and reptiles.
- Oak- hickory is the most common forest type and the tree species with the greatest volume in the Upper Fox Basin is white oak followed by black and pin oak, white and red pine, aspen and soft maple.

Watershed Activities / Concerns / Priorities

- The Upper Fox River basin is part of the Wisconsin DNR's Upper Fox River basin management area, which also includes the Lake Winnebago watershed.
- There are a large number of dams on the Upper Fox River system. Several have been removed, including 2 on the Baraboo River. Data collected from the removal demonstrate that historical fish species have returned, and the population of exotic species declined.
- The Upper Fox watershed is home to the state's largest Wetland Reserve Restoration Program (WRP). Duffy's Marsh is a 1,732 acre wetland restoration project in Marquette County. There are over 60 WRP contracts in the larger Upper Fox River management area (which also includes the Lake Winnebago watershed).
- The Upper Fox Basin Partnership held a workshop to identify concerns and issues facing natural resources in the basin. The three priorities listed below are not ranked against each other, but rather, they rose to the top when compared to all of the other stressors affecting the natural resources of the basin and the uses of those resources by the public.
  - Wetland filling/ loss
  - Habitat loss and fragmentation
  - Nutrient loading/ Nonpoint Source Pollution
- Other environmental concerns include:
  - Water quality problems from contaminated sediments, runoff in urban and agricultural areas, floodplain development and overuse of groundwater supplies.
  - Riparian/wetland, woodland, and grassland habitat loss, deterioration, and fragmentation from rapid development and conversion of rural lands. Protection and maintenance of habitat is important for maintaining spatial and temporal ecosystem diversity critical for wildlife.
  - Grassland restoration is a major initiative, with virtually the entire historic prairie, sedge meadows and oak savannas having been converted to agriculture due to their flat topography and rich soils.
  - Exotic species are a continuing and emerging problem. Plant species such as reed canary grass, purple loosestrife, buckthorn, garlic mustard, and Eurasian water milfoil can quickly out-compete native species and wreak havoc on ecosystem balance. Zebra mussels and rusty crayfish are spreading to basin waterways, disrupting stream and lake ecology.
  - Monitoring of wildlife populations, water quality, and ecosystem function are needed to understand the status and trends of resources.
- The Oneida Tribe has a water quality protection plan for the reservation and has participated in the State priority watershed Program. It is participating in sediment and phosphorus study for assessment and modeling for the Wisconsin Lower Fox Basin. It is also participating in the Wisconsin NRCS WI Tribal Conservation Advisory Council.



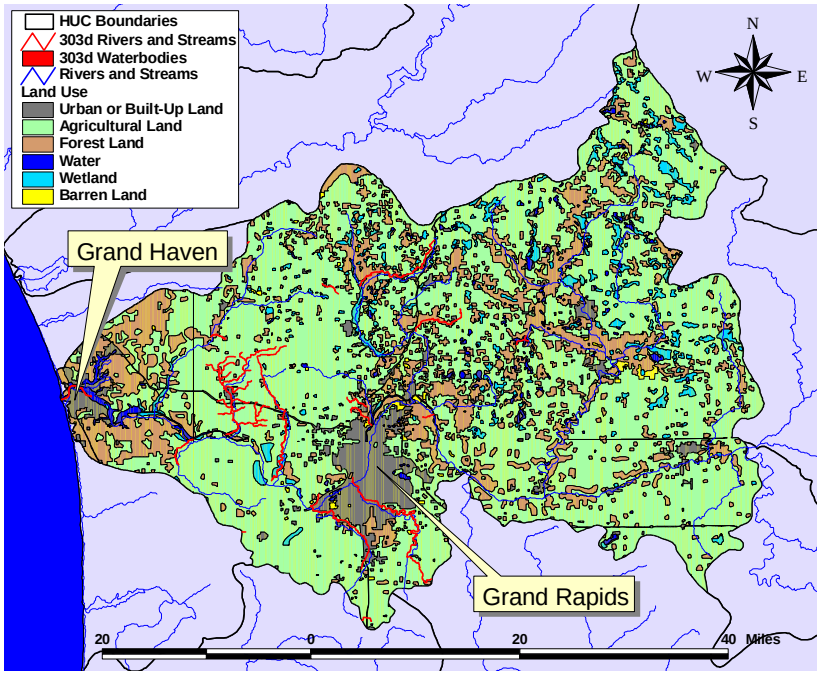
Waterbody Name	Impairment	TMDL Submittal
Buffalo Lake	Mercury Fish Consumption Advisory	NA
Butte Des Morts Lake	Nutrients	NA
	Mercury Fish Consumption Advisory	
	PCB Fish Consumption Advisory	
	Organic Enrichment/Low Dissolved Oxygen	
	Sediment	
Fox River (From Portage North To, But Not Including Buffalo Lake)	PCB Fish Consumption Advisory	NA
Fox River At Buffalo Lake	PCB Fish Consumption Advisory	NA
Fox River, Oshkosh	Aquatic Toxicity	NA
Neenah Slough	PCB Fish Consumption Advisory	NA
	Organic Enrichment/Low Dissolved Oxygen	
Peppermill Creek	Loss Of Instream Habitat	NA
	Sediment	
	Temperature	
Silver Creek (2)	Contaminated Sediments	NA
	Loss Of Instream Habitat	
	Temperature	
Silver Lake (Big)	Aquatic Toxicity	NA
Un. Trib To Mason Lake (T14nr7e S25	Loss Of Instream Habitat	NA
	Sediment	
Wurch Creek	Loss Of Instream Habitat	NA
	Sediment	



Lower Grand River Watershed

Hydrologic Unit Code: 04050006

For more information, see the USEPA "Surf Your Watershed" website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04050006



Approved Watershed Management Plans

- Hager Creek - Ottawa County Parks & Recreation Commission,
- Lake Macatawa - Macatawa Area Coordinating Council
- Plaster Creek - Kent County Drain Commission
- Schoolhouse Creek - Kent County Drain Commission
- Spring Lake - Spring Lake Lake Board
- Bear Creek - Cannon Township
- Buck Creek - Grand Valley Metro Council
- Crockery Creek - Muskegon Conservation District
- Rogue River - Grand Valley Metro Council
- Sand Creek - Grand Valley Metro Council
- York Creek - Alpine Township

Watershed Overview / Ecology / Biodiversity

- The Lower Grand watershed covers 2012 square miles
- Over 68 percent of the land use is agricultural
- There are 17 listed impaired waters
- Grand Rapids and Grand Haven are the major urban areas in the watershed
- The Grand River Watershed is the largest watershed in the State of Michigan. The watershed has been divided into two parts, the Lower Grand River Watershed and the Upper Grand River Watershed. The Lower Grand River Watershed covers ten counties.

Conservation Groups

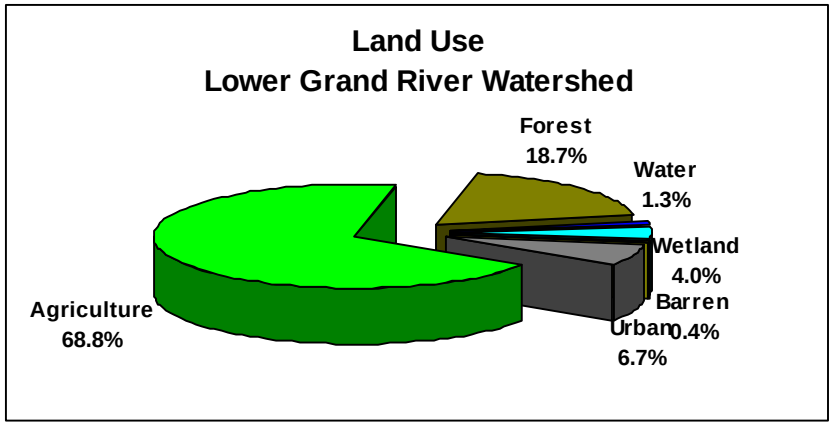
- Ottawa County Parks & Recreation Commission, http://www.co.ottawa.mi.us/parks/
- Macatawa Area Coordinating Council http://www.macatawa.org/~macc/
- Kent County Drain Commission http://www.accesskent.com/government/departments/drain_index.htm
- Kent County Drain Commission
- Spring Lake Lake Board
- Rogue River Watershed Council
- West Michigan Environmental Action Council
- Natural Resource Conservation Service
- Grand Valley State University Annis Water Resources Institute, http://www.gvsu.edu/wri/isc/lowgrand/

Watershed Activities / Concerns / Priorities

- A Section 319 Watershed Management Planning Grant was awarded by the Michigan Department of Environmental Quality (MDEQ) to facilitate the development of a watershed management plan for the Lower Grand River Watershed. The grant was awarded to the Grand Valley Metro Council. The Grand Valley Metro Council has contracted with the Annis Water Resources Institute and Fishbeck, Thompson, Carr & Huber, Inc. to complete the management plan. Many communities are participating in the development of this plan. Counties, cities, and townships are currently involved by matching funds or in kind services.

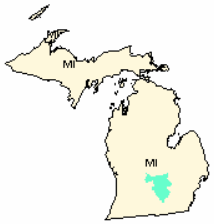
- Ottawa County Parks to stop this erosion and to restore the Hager Creek area to its natural condition. To achieve this goal, the Hager Creek Watershed Management Plan was developed. This plan, which has been approved by the Michigan Department of Environmental Quality, looks at the entire length of Hager Creek as well as the surrounding land including properties west of 28th Avenue.

- The primary goal of the Sand Creek Watershed Project is to restore or improve the cold water fishery. The secondary goal of the project is to protect and improve the habitats of native aquatic life and wildlife.



Impaired (303d) Waters

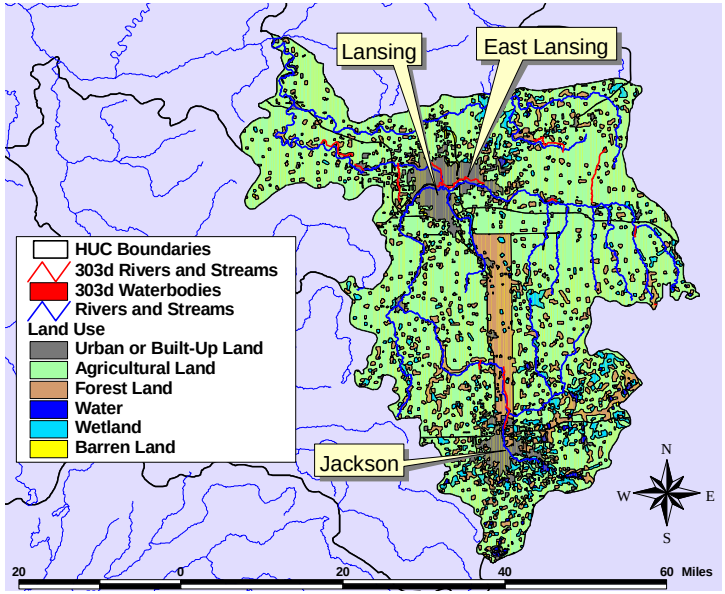
Waterbody Name	Impairment	Anticipated TMDL Submittal
Ball Creek	Macroinvertebrate Community Rated Poor	2001
Bass River	Pathogens	2006
	Fish Community Rated Poor	2006
	Macroinvertebrate Community Rated Poor	2006
Buck Creek	Pathogens	2006
Deer Creek (Watershed)	Nutrients	2011
	Pathogens	2011
	Dissolved Oxygen	2011
	Fish Community Rated Poor	2011
	Fish Kills	2011
	Macroinvertebrate Community Rated Poor	2011
Duke Creek	Macroinvertebrate Community Rated Poor	2006
Grand River	PCBs Fish Consumption Advisory	2009
	PCBS	2009
Grand River	Mercury	2010
Grand River	Pathogens	2006
Plaster Creek	Pathogens	2001
	Fish Community Rated Poor	2001
	Macroinvertebrate Community Rated Poor	2001
Rainbow Lake	Mercury	2011
Rio Grande Creek	Pathogens	2002
Sand Creek	Fish Community Rated Poor	2006
Stegeman Creek	Macroinvertebrate Community Rated Poor	2006
Strawberry Creek	Fish Community Rated Poor	2006
Unnamed Tributary To Grand River	Fish Community Rated Poor	2006
Wabasis Lake	Mercury	2011
York Creek	Fish Community Rated Poor	2006



Upper Grand River Watershed

Hydrologic Unit Code: 04050004

For more information, see the USEPA website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04050004



Approved Watershed Management Plans

- Carrier Creek - Eaton County Drain Commission

Watershed Management Plans Under Development

- Upper Grand River – Grand Valley State University Annis Water Resources Institute

Watershed Organizations

- Eaton County Drain Commission, http://www.eatoncounty.org/Drain/Drain.htm
- Grand Valley State University Annis Water Resources Institute, www.gvsu.edu/wri

Watershed Overview / Ecology / Biodiversity

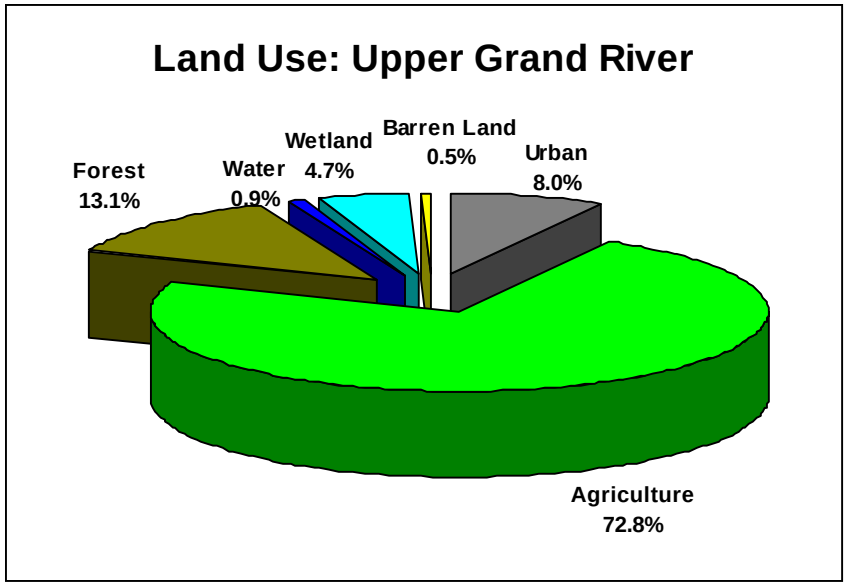
- The Upper Grand River watershed is almost 1750 square miles.
- Almost three quarters of the land is in agricultural use.
- There are three urban areas in the watershed: Lansing, East Lansing, and Jackson, Michigan.
- The watershed has 10 listed impaired waters.
- There are 958 miles of river and streams in the watershed.
- The Upper Grand watershed flows into the Lower Grand River watershed, where it then flows into Lake Michigan

Watershed Activities / Concerns / Priorities

- A 319 grant was awarded to the Annis Water Resources Institute to develop an Upper Grand River watershed management plan.
- The Dahlem Nature Center was awarded $12,000 in grant funds to assess the benthic macroinvertebrate community, stream habitat, and water chemistry in the Upper Grand River Watershed.
- Development in Delta and Windsor townships over the last several years has significantly changed the landscape around Carrier Creek:
  - An increase in the amount of impervious surface area (i.e., rooftops and parking lots) has caused an increase in the amount of rainwater draining into Carrier Creek.
  - Water levels are flashy, fluctuating from just a few inches to nearly four feet after heavy rains.
  - Because of past dredging activities, natural floodplains have been separated from the creek and are no longer available for water storage.
- The Carrier Creek Stormwater Management and Restoration Project was developed to address these challenges. Without improvement, the increased water volume entering the creek will cause increased flooding, further erosion, and increased flashiness.
  - South of I-496 (upstream), efforts will focus on creating an effective drainage system and reducing flashy hydrology to the downstream portions of the drain.
  - North of I-496 (downstream), work will focus on creek restoration.

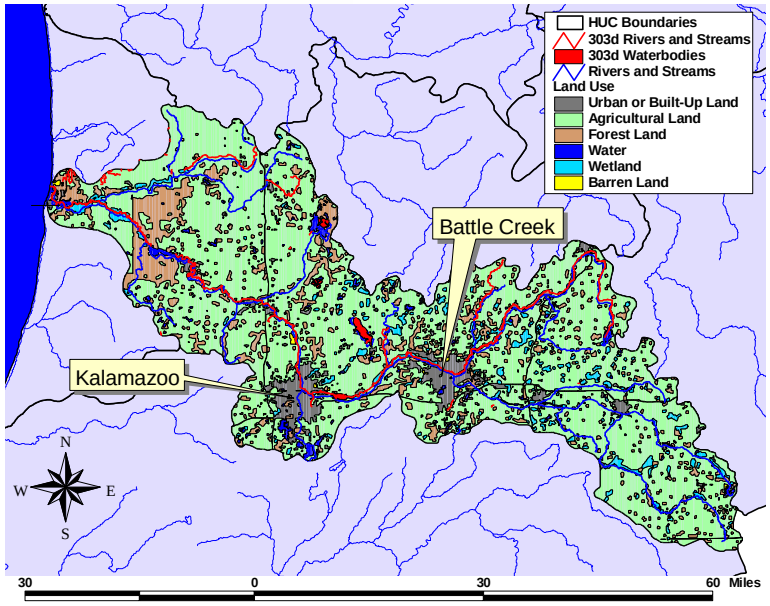
Impaired (303d) Waters

Waterbody Name	Impairment	Anticipated TMDL Submittal
Albrow Creek	Pathogens	2007
Carrier Creek	Erosion	2000
	Impaired Biologic Community	2000
Grand River	PCB Fish Consumption Advisory	2009
	PCBs	2009
Grand River	Pathogens	2008
Grand River	Pathogens	2003
	Dissolved Oxygen	2003
	Fish Community Rated Poor	2003
	Macroinvertebrate Community Rated Poor	2003
Grand River And Red Cedar River#	Pathogens	2011
	Dissolved Oxygen	2011
	Fish Kills	2011
Red Cedar River	Fish Community Rated Poor	2003
Red Cedar River	Pathogens	2011
	Dissolved Oxygen	2011
Vermillion Creek	Pathogens	2009
Wolf Creek	Nutrients	2005
	Fish Community Rated Poor	2005
	Macroinvertebrate Community Rated Poor	2005



Kalamazoo River Watershed

Hydrologic Unit Code: 04050003



Approved Watershed Management Plans

- Davis, Gourdneck and Portage Creeks - Forum for Greater Kalamazoo
- Four Townships Area - Four Townships Water Resources Council
- Greater Battle Creek Area - Calhoun Conservation District
- Little Rabbit River - Allegan Conservation District
- Portage and Arcadia Creek - Forum of Greater Kalamazoo
- Rice Creek - Calhoun Conservation District
- Upper Rabbit River - Allegan Conservation District

Watershed Groups

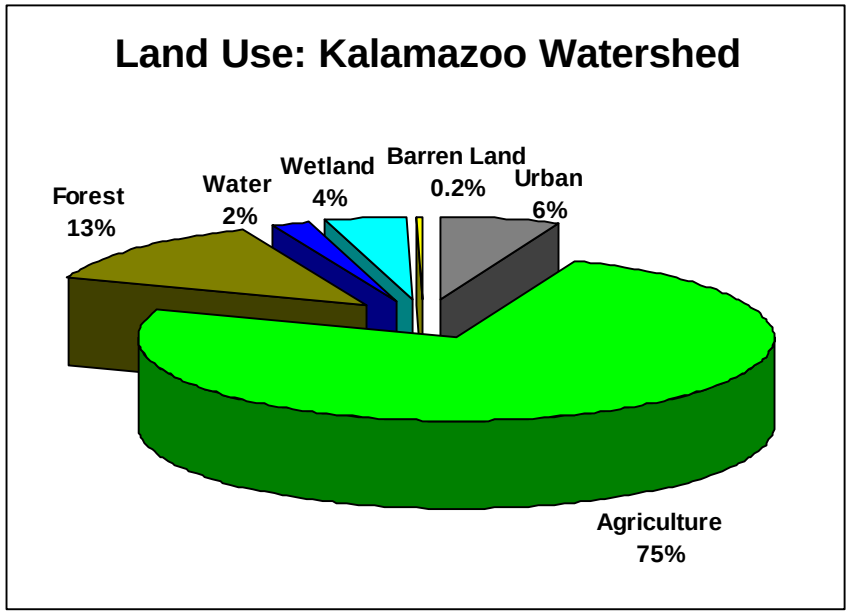
- Kalamazoo river Network www.kalamazooriver.net
- The Forum of Greater Kalamazoo www.theforum.com
- Four Townships Water Resources Council http://community.mlive.com/cc/4twrc
- Calhoun Conservation District - http://www.calhouncd.org/
- Allegan Conservation District -http://allegancd.org/

Watershed Overview / Ecology / Biodiversity

- The Kalamazoo basin watershed covers 2029 square miles.
- Almost 75 percent of the watershed is agricultural use
- There are three urban areas in the watershed: Kalamazoo, Battle Creek, and Albion
- The basin includes 22 listed impaired waterways.
- The Kalamazoo River is an Area of Concern due to PCB contamination.

Watershed Activities / Concerns / Priorities

- A Watershed Management Plan (WMP) [funded for a two-year period beginning July 1, 2001 by a Nonpoint Source Pollution Grant under Section 319 of the Clean Water Act (CWA)] is being developed for Portage Creek and Arcadia Creek in the south central portion of the Kalamazoo River Watershed. The Kalamazoo River Watershed drains eight counties in Southwest Lower Michigan and empties into Lake Michigan at Saugatuck, Michigan.
- In 2002 the Four Township Water Resources Council completed a 3 year program to protect surface water quality under Section 319 of the federal Clean Water Act. The Michigan DEQ and U.S. EPA have awarded the Council a second grant of $210,000 for 2 years. The Council will provide an additional $70,000 in local contributions towards the project. The project will continue current programs to assist local governments develop land use planning and zoning strategies, create and distribute research and educational materials and facilitate conservation easements. In addition two new important programs will be implemented. The Council will greatly expand its citizen education program on local resource protection and is expanding the Natural Features Inventory of the Four Township area.
- The Battle Creek River Watershed Project is an effort by landowners, residents, conservation groups, and local, state, and federal agencies to protect the quality of water for drinking, agriculture, recreation, wildlife, and fisheries. The Battle Creek River has been identified as one of the leading contributors of phosphorus and sediment to the Kalamazoo River. A watershed management plan will be developed that integrates the concerns of watershed stakeholders and, through implementation, improves the water quality within the watershed area.
- The goal of the Gun River watershed project is to improve water quality and aquatic habitat in the Gun River Watershed for the benefit of present and future generations. The objectives of the planning project are to locate sources of pollution in the watershed, to prioritize critical areas within the watershed in which to focus implementation efforts, and to build and retain a high level of stakeholder awareness and participation. The project is designed to compliment current efforts in the Kalamazoo River/Lake TMDL process, to reduce phosphorus, and improve water quality.
- Match-e-be-nash-she-wish Band of Pottawatomi (Gun Lake Band) is involved in Kalamazoo River watershed

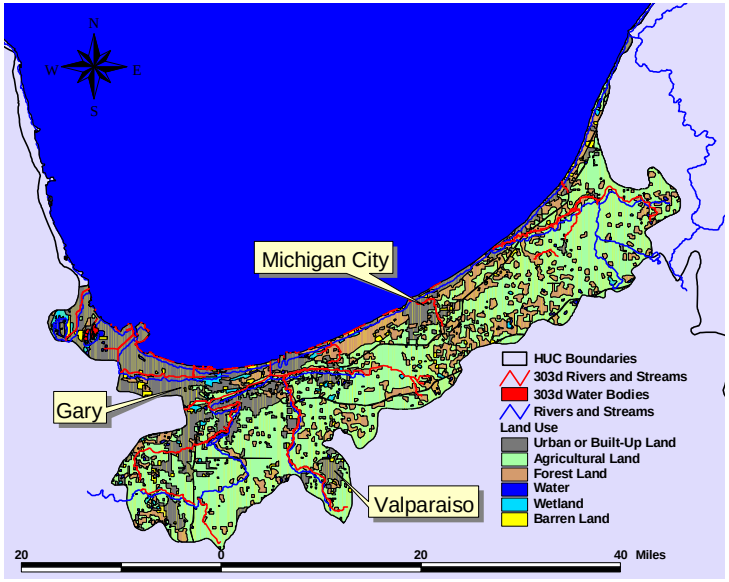


For more information, see the USEPA "Surf Your Watershed" website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04050003

Waterbody	Impairment	TMDL Submittal
Augusta Creek	Macroinvertebrate Community Rated Poor	2006
Battle Creek River	Fish Consumption Advisories (PCBs)	2010
Black Creek	Nutrients	2004
	Macroinvertebrate Community Rated Poor	2004
	Nuisance Plant Growth	2004
	Total Dissolved Solids	2004
Brickyard Creek	Macroinvertebrate Community Rated Poor	2011
Chart Creek, E. Br.	Macroinvertebrate Community Rated Poor	2001
Crooked Creek	Macroinvertebrate Community Rated Poor	2011
Davis Creek	Fish Community Rated Poor	2004
	Macroinvertebrate Community Rated Poor	2004
Fenner Lake	Nutrients	2006
	Fish Consumption Advisories (PCBS)	2006
	Nuisance Plant Growths	2006
Gull Lake	Mercury	2011
	Fish Consumption Advisories (PCBs)	2010
Gun Lake	Pathogens	2011
Gun River	Macroinvertebrate Community Rated Poor	2011
Kalamazoo River	Mercury	2010
Kalamazoo River	Fish Consumption Advisories (PCBs)	2006
Lake Macatawa	Chlordane	2009
	Fish Consumption Advisories (PCBs)	2009
Little Rabbit River	Macroinvertebrate Community Rated Poor	2010
Mann Creek	Bacterial Slimes	2011
	Macroinvertebrate Community Rated Poor	2011
	Organic Enrichment	2011
Pine Lake	Mercury	2011
Rabbit River	Endosulphan	2005
	Macroinvertebrate Community Rated Poor	2005
Red Run	Dissolved Oxygen	2007
	Fish Community Rated Poor	2007
	Macroinvertebrate Community Rated Poor	2007
Rice Creek	Macroinvertebrate Community Rated Poor	2011
Selkirk Lake	Fish Consumption Advisories (Mercury)	2011
Wannadoga Creek	Macroinvertebrate Community Rated Poor	2011

Little Calumet – Galien Watershed

Hydrologic Unit Code: 04040001



Approved Watershed Management Plans

- Galien River - The Conservation Fund http://www.chikamingopenlands.org
- Berrien County Drain Commissioner http://www.berriencounty.org/draincomm/

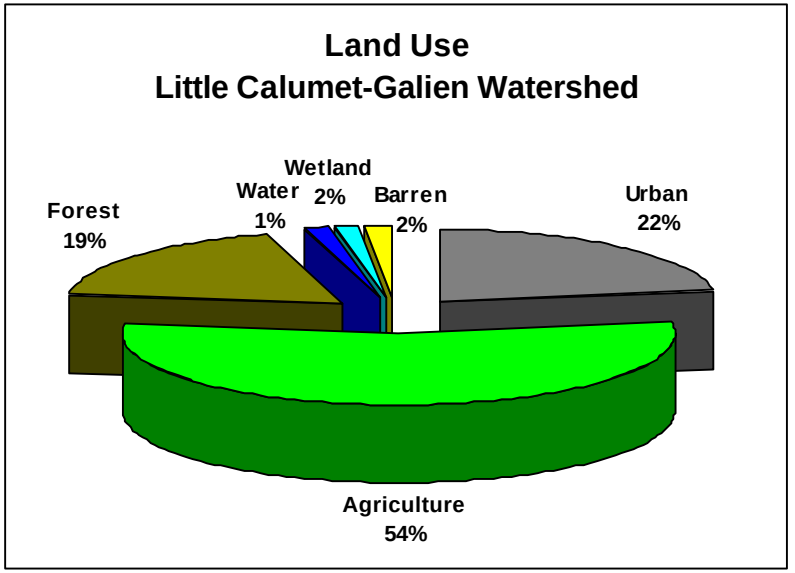
Watershed Organizations

- Grand Cal Task Force -http://www.grandcal.org/
- Save the Dunes Council - http://www.savedunes.org/
- Chicago Wilderness - http://www.chiwild.org/

For more information, see the USEPA "Surf Your Watershed" website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04040001

Watershed Overview / Ecology / Biodiversity

- Urban areas include Chicago, Gary, Michigan City, and Valparaiso.
- The watershed covers 723.72 square miles
- The watershed has 27 listed impaired waters.
- Most coastal wetlands and nearshore aquatic habitats have been eliminated or degraded. The effect of natural forces on sand transport and shoreline development has been greatly reduced or eliminated entirely in some areas.
- Industry filled or drained the wetlands and leveled the dunes and used steel slag to fill low areas and the lakefront. The Little Calumet River has actually been moved several times to accommodate industry.
- The region remains one of the most industrialized in the Lake Michigan basin.
- Presettlement northwest Indiana was continuous wetland. As of 1979, less than 5 percent of the original wetland cover remained. This exists primarily as narrow strips of intact habitat.
- The Indiana Dunes National Lakeshore has more plant species (including exotics) than all but two other national parks, and at 16,000 acres is much smaller than most other national parks.
- Warren Dunes State Park provides 1,950 acres of recreational opportunities along the beautiful shore of Lake Michigan in southwestern Michigan. The rugged dune formation rises 240 feet above the lake The park has more than two miles of shoreline, six miles of hiking trails and is open year-round.



Watershed Activities / Concerns / Priorities

- The City of Gary and The Grand Calumet Task Force maximize the benefit of the Grand Calumet River cleanup by looking at ways to improve the surrounding environment for the benefit of the community in Gary.
- The US Army Corps of Engineers (USACE) is in process of dredging the sediments from the Indiana Harbor and Ship Canal in order to continue its use as a navigable waterway.
- The Galien River Watershed Project is focused on decreasing drainage and flooding problems along the river and the streams flowing into it. The focus of a 319 grant is flood prevention and improved water quality in the system. Beneficiaries will be local farmers and those interested in fishing and other recreational activities.
- The Grand Calumet Task Force in partnership with the City of East Chicago and the East Chicago Housing Authority will work together with the residents of the West Calumet section of East Chicago to create an Urban Open Space.
- The watershed includes a Great Lakes Area of Concern. Problems in the AOC include contamination from polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs) and heavy metals, such as mercury, cadmium, chromium and lead. Additional problems include high fecal coliform bacteria levels, biochemical oxygen demand (BOD) and suspended solids, oil and grease. Nonpoint sources include:
  - Contaminated Sediment.
  - Industrial Waste Site Runoff.
  - CERCLA Sites.
  - Hazardous Waste Sites under RCRA
  - Underground Storage Tanks (USTs)
  - Atmospheric Deposition
  - Urban Runoff.
  - Contaminated Groundwater

Point sources of contaminants include:
? Industrial and Municipal Wastewater Discharges.
? Combined Sewer Overflows (CSOs).

Impaired (303d) Waters

Waterbody Name	Impairment	TMDL Submittal
Deer Creek, MI	Pathogens	2004
	Algae	2004
	Bacterial Slimes	2004
	Macroinvertebrate Community Rated Poor	2004
Galien River, MI	Pathogens	2000
	E. Coli	2000
Galien River, MI	Chlordane	2009
	PCB Fish Consumption Advisory	2009
Galien River, E. Br., MI	Nutrients	2009
	Algae	2009
Sawyer Creek, MI	Nutrients	2003
	Algae	2003
	Macroinvertebrate Community Rated Poor	2003
Beaver Dam Ditch, IN	Impaired Biotic Communities	2007
Burns Ditch, IN	Pesticides	2004
	Lead	2004
	E. Coli	2004
	Mercury Fish Consumption Advisory	2012
	PCB Fish Consumption Advisory	2012
	Impaired Biotic Communities	2007
Deep River, IN	Impaired Biotic Communities	2007
Dunes Creek, IN	Impaired Biotic Communities	2007
Grand Calumet River (East Branch), IN	Pesticides	
	Copper	2000
	Lead	2000
	Cyanide	2000
	Oil And Grease	2000
	Mercury Fish Consumption Advisory	2000
	PCB Fish Consumption Advisory	2000
	Impaired Biotic Communities	2000

Little Calumet-Galien Watershed
Impaired 303(d) Waters continued

Waterbody Name	Impairment	TMDL Sub-mittal
Trail Creek, IN	Cyanide	2004
	E. Coli	2004
	Mercury Fish Consumption Advisory	2012
	PCB Fish Consumption Advisory	2012
Turkey Creek, IN	Impaired Biotic Communities	2007
Wolf Lake, IN	PCB Fish Consumption Advisory	2012
Calumet R, IL	Metals	
	Nutrients	
	Ammonia	
	Organic Enrichment/Low Dissolved Oxy-gen	
	Other Habitat Alteration(S)	
Calumet R, IL	Metals	
	Nutrients	
	Ammonia	
	Organic Enrichment/Low Dissolved Oxy-gen	
	Other Habitat Alteration(S)	
Wolf, IL	Nutrients	
	Suspended Solids	
	Noxious Aquatic Plants	
	Organic Enrichment/Low Dissolved Oxy-gen	
	Siltation	
Grand Calumet River (West Branch), IN	Pesticides	2000
	Lead	2000
	Cyanide	2000
	Ammonia	2000
	Chlorides	2000
	Dissolved Oxygen	2000
	Mercury Fish Consumption Advisory	2000
	PCB Fish Consumption Advisory	2000
	Impaired Biotic Communities	2000
Grand Calumet River Lagoons / Marquette Park Lagoon, IN	PCB Fish Consumption Advisory	2000
Indiana Harbor Ca-nal (IHC), IN	Pesticides	2000
	Lead	2000
	Dissolved Oxygen	2000
	Mercury Fish Consumption Advisory	2000
	PCB Fish Consumption Advisory	2000
Indiana Harbor Ca-nal (Lake George Branch Of), IN	Pesticides	2000
	Oil And Grease	2000
	Dissolved Oxygen	2000
	Mercury Fish Consumption Advisory	2000
	PCB Fish Consumption Advisory	2000
	Impaired Biotic Communities	2000
Lake George, IN	PCB Fish Consumption Advisory	2012
Lake Michigan, IN	E. Coli	2004
	Mercury Fish Consumption Advisory	2012
	PCB Fish Consumption Advisory	2012
Little Calumet River, IN	Pesticides	2004
	Cyanide	2004
	E. Coli	2004
	Mercury Fish Consumption Advisory	2012
	PCB Fish Consumption Advisory	2012
Little Calumet River, IN	Mercury Fish Consumption Advisory	2012
	PCB Fish Consumption Advisory	2012
Little Calumet River, IN	Pesticides	2004
	Cyanide	2004
	Mercury Fish Consumption Advisory	2012
	PCB Fish Consumption Advisory	2012
	Impaired Biotic Communities	2007
Niles Ditch, IN	Impaired Biotic Communities	2007
Salt Creek, IN	E. Coli	2004

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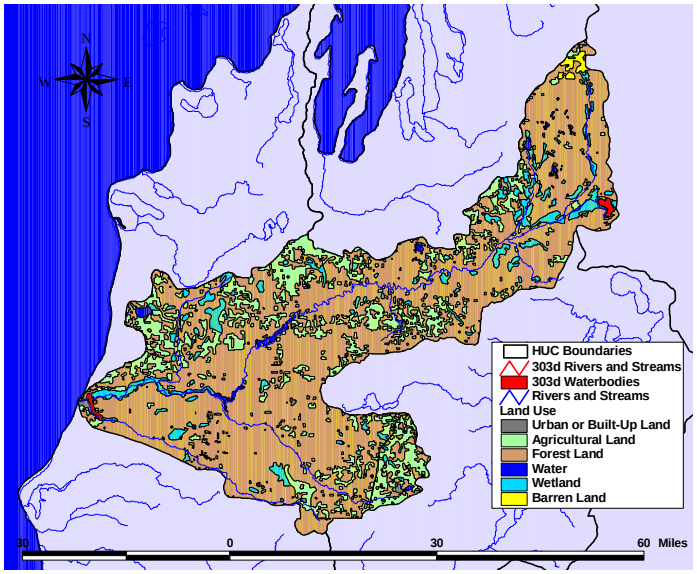
Manistee River Watershed

Hydrologic Unit Code: 04060103



Approved Watershed Management Plans

- Little Manistee River - Conservation Resource Alliance
- Manistee River - Conservation Resource Alliance

Watershed Organizations

- Upper Manistee River Association
- Conservation Resource Alliance
- Little River Band of Ottawa Indians

For more information, see the USEPA "Surf Your Watershed" website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04060103

Watershed Overview / Ecology / Biodiversity

- The Manistee River watershed covers 1904.04 square miles, with less than half of mile of Lake Michigan shoreline.
- Its predominant land use is forest.
- The watershed has just over 15 square miles of inland lakes
- It has 833 miles of waterways, 93 percent of which have been assessed.
- Two waterways are TMDL listed waterways. One is listed for one contaminant and one is listed for three contaminants.
- The Manistee is one of the most stable, high-quality, coldwater streams in the country. It is a groundwater-driven stream.
- Excessive sediment is a primary problem in the watershed, affecting fish reproduction, alters channel morphology, and impairs aquatic invertebrates. The primary sources are erosion from degraded streambanks and poorly designed stream crossings.

Watershed Activities / Concerns / Priorities

- Watershed Restoration work on the Manistee River is carried out by a diverse group of partners organized as members of the Upper Manistee River Restoration Committee. This committee is administered by Huron Pines RC&D and has actively worked on stabilizing streambanks, restoring access sites, and creating aquatic habitat. A partner of the Restoration Committee, the Upper Manistee River Association, is now working on the designation of the Upper Manistee as an official Natural River. Such a status would give the Manistee extended protection from overdevelopment.
- The Little River Band of Ottawa Indians received a 319 grant to address four road-stream crossings that are failing, improve access to the river's edge, and reclaim a lake sturgeon spawning ground.
- The Little River Band of Ottawa Indians received one of the first 20 national watershed grants to support their efforts to restore and monitor the water quality of the Manistee River.

- The Conservation Resource Alliance (CRA) was awarded a Clean Michigan Initiative Grant for the Manistee River Watershed, including Bear Creek, for $696,691, utilizing $263,228 in local match, over a three-year period. Under this grant approximately 6 streambanks and 3 road/stream crossings within the Bear Creek Watershed will be repaired. Additionally, the CRA was awarded $80,000 in Ten Percent Funds from the U. S. Forest Service to repair 5 road/stream crossings in the watershed. CRA was also awarded a TEA 21 Grant from the Michigan Department of Transportation that includes money to address eroding road/stream crossings on Bear Creek.

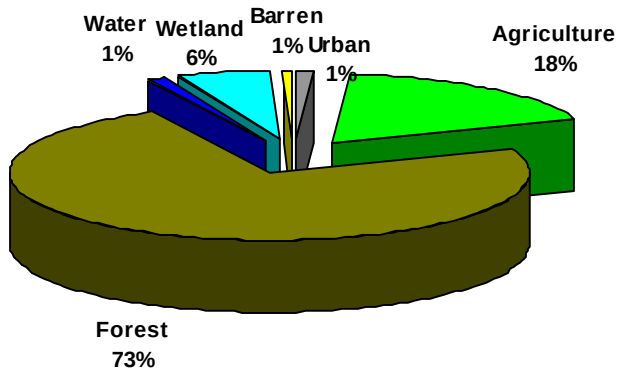
- Three county Road Commissions are working cooperatively in the Pine River subwatershed to address traffic safety and water quality concerns simultaneously. With Phase 1 completed, Phase 2 has been granted $225,000 by the Michigan Department of Transportation to fix failing road/stream crossings in the Pine and Little Manistee watersheds.

- In 2002, two stream bank sites were completed by the Little Manistee River Watershed Partnership using 319 funds.

- Two stream bank sites were restored through the Pine River Watershed Restoration Project in 2002 for the Big Manistee River watershed. Design work began on three Osceola County road crossing sites to be implemented in 2003 or 2004. Site planning work on one additional streambank on the Pine is in progress, with implementation planned for 2004.

- A three year 319 project on the Manistee River was finished in 2002 by the Manistee River Watershed Partnership Project. The final project, a timber bridge over the north branch near Sharon was completed at a cost of over $320,000. The project was responsible for four large stream banks, and three large road crossings. In addition, the partnership was formed and signed by approximately 35 partners.

Land Use
Manistee River Watershed

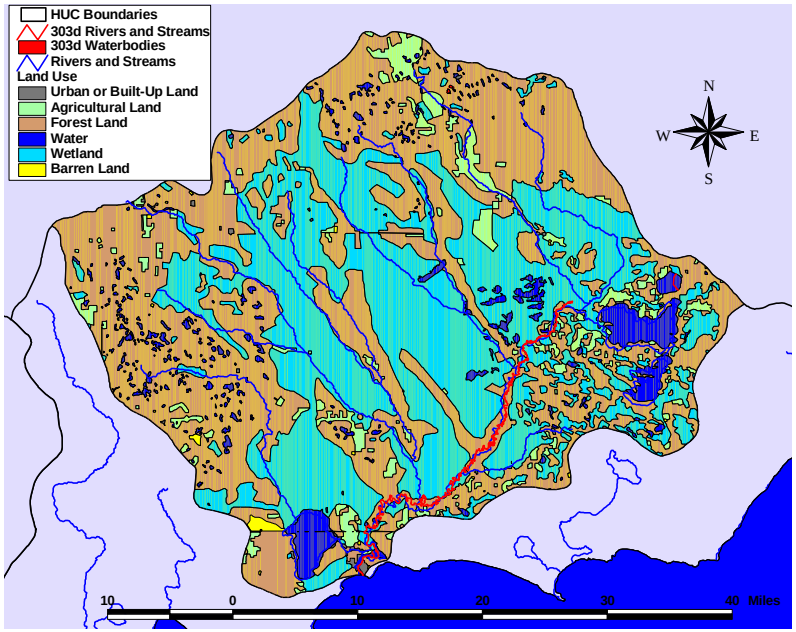


Impaired (303d) Waters

Waterbody	Impairment	Anticipated TMDL Submittal
Lake Margrethie	Mercury	2011
Manistee Lake	Mercury	2011
	Pathogens	2006
	PCBS	2010

Manistique River Watershed

Hydrologic Unit Code: 04060106



Watershed Organiozations

- The Manistique River Area of Concern Public Advisory Committee, Merilee Blowers, chair

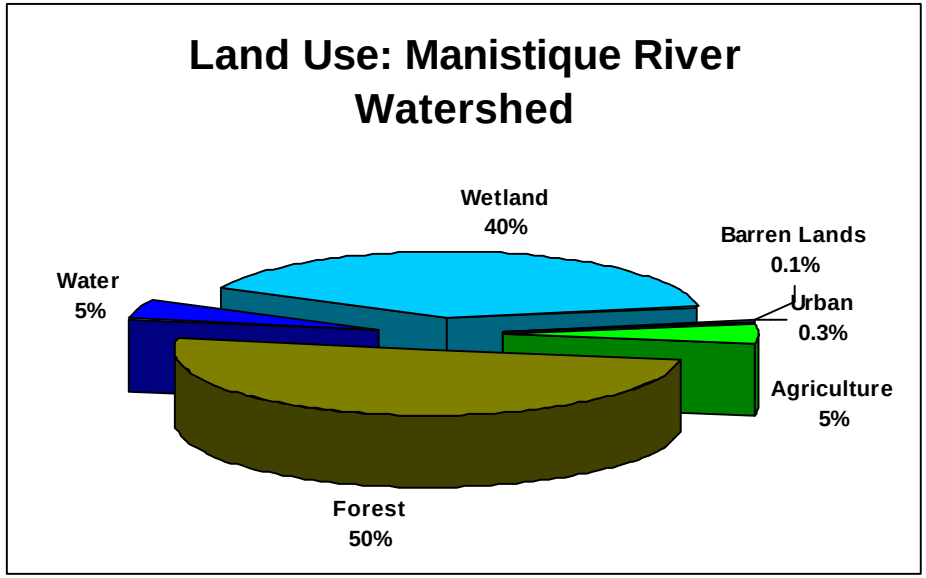
For more information, see the USEPA "Surf Your Watershed" website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04060106 or contact Sharon Baker at bakerSL@michigan.gov.

Watershed Overview / Ecology / Biodiversity

- The Manistique River is an Area of Concern (AOC).
- Historical uses of Manistique River waters in the AOC include receiving wastes from sawmills, a paper mill, small industries, the municipal waste water treatment plant, plus navigation for shipping, ferrying, recreational boating and commercial fishing. Current uses include receiving the wastewater discharges from Manistique Papers, Inc. and the City of Manistique Wastewater Treatment Plant. Recreational uses are mainly boating, sightseeing, and fishing.
- Approximately 141,000 cubic yards of PCB contaminated sediments have been removed from the river and harbor from 1994-2000.
- The dredging of contaminated sediments was completed at the end of 2000. Final dredging was done by divers with hydraulic hoses to minimize resuspension of PCBs and to ensure a clean substrate when completed.
- The Seney National Wildlife Refuge is upriver of Manistique. The refuge is 95,455 acres of field and secondary growth forest. Almost two-thirds of the refuge are varying types of wetlands that provide habitat for threatened and endangered species and a variety of wildlife. The refuge is home to 200 bird species, 26 fish species, and 50 mammalian species. It is also home to such bird species as eagles, loons, and trumpeter swans.

Watershed Activities / Concerns / Priorities

- Restrictions on Fish & Wildlife Consumption include a ban for all persons banning consumption of all carp from the Manistique River below M-94/ Old U.S. 2. and consumption restrictions on channel catfish (below M-94/Old U.S. 2) for women and children, and consumption restrictions on northern pike (upstream from dam at Manistique) for all persons.
- There are beach closings and restrictions on recreational access due to the presence of PCBs at the site and the combined sewer overflow (CSO) pipe located within the AOC that can discharge sewage during storms and during the spring runoff. The AOC is on the list of Michigan Sites of Environmental Contamination identified under Public Act 307. It is one of the highest ranking sites in the state.
- The Manistique River RAP found that the main problem contributing to fishery use impairment was PCBs. Aquatic nuisance species also threaten the fishery productivity. The presence of sawdust in the water and in the sediments severely degrades plant and animal habitat. The dam at the head of the old flume restricts fish passage but effectively blocks lamprey from the upper river.
- There are plans to phase out combined sewer systems by 2020.

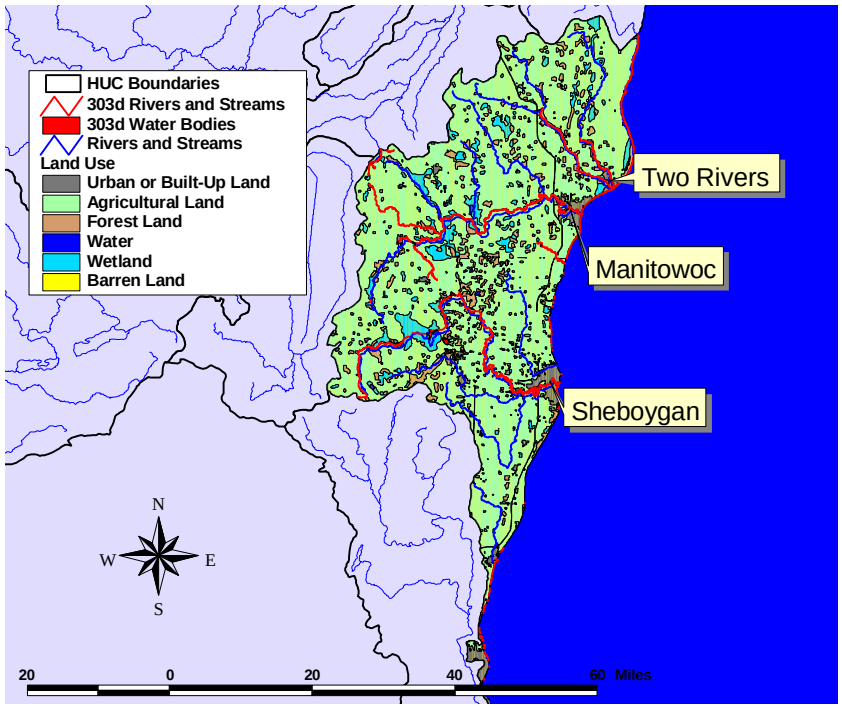


Impaired (303d) Waters

Waterbody Name	Impairment	Anticipated TMDL
Manistique River	Pathogens	2011
	PCBs Fish Consumption Advisory	2000
Manistique River And N. Manistique	Mercury Fish Consumption Advisory	2011
West Branch Lakes	Mercury Fish Consumption Advisory	2011

Manitowoc-Sheboygan Watershed

Hydrologic Unit Code: 04030101



Watershed Contacts

- Sheboygan Rivers Land and Water Basin Partners - http://clean-water.uwex.edu/sheboygan/
- Lakeshore Natural Resources Partnership http://clean-water.uwex.edu/lakeshore/
- Doug Rossberg, Lakeshore Basin Water Team Leader - Doug.Rossberg@dnr.state.wi.us
- Vic Pappas , Sheboygan River Basin Water Team Leader - Victor.Pappas@dnr.state.wi.us

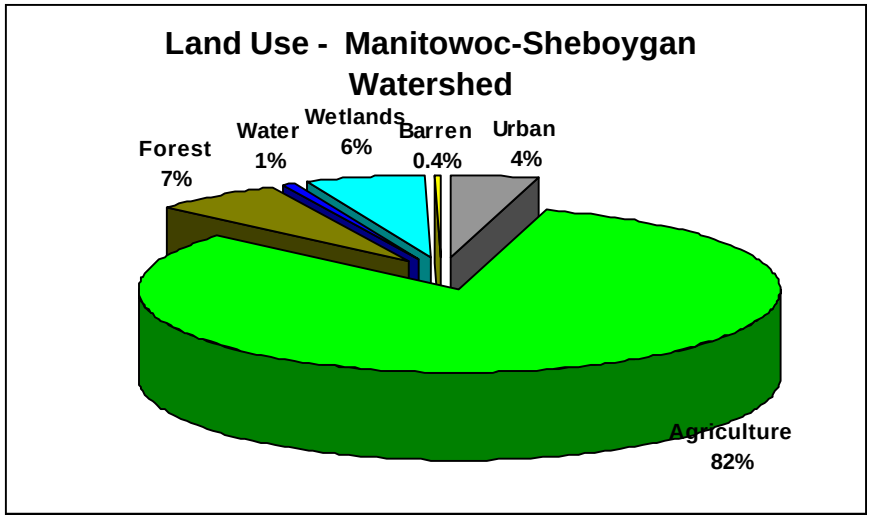
For more information, see the Wisconsin Department of Natural Resources' "Wisconsin's Basins" website at http://dnr.wi.gov/org/gmu/gmu.html and the USEPA website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04030101

Watershed Overview / Ecology / Biodiversity

- The major tributaries of the watershed include the Branch River, the North and South branches of the Manitowoc River, the Lower Manitowoc River, Sevenmile and Silver Creeks, (all in the Manitowoc sub-watershed) Sauk and Sucker Creeks, the Black River,the Sheboygan River, the Onion River, the Mullet River, and the Pigeon River (in the Sheboygan River subwatershed).
- The Sheboygan River is an Area of Concern.
- Predominant land uses are agricultural or rural and include pasture land, cropland and vacant fields. Natural Areas, including open water, woodlands, wetlands, parklands and undisturbed non- agricultural lands are the second most abundant land use.
- The Natural Heritage Inventory has documented 10 endangered, 20 threatened and 37 special concern plant and animal species, and 24 rare aquatic and terrestrial communities within the Sheboygan River basin.
- Runoff from specific and diffuse sources, contaminated sediment, habitat modifications (such as channelization and dams) have degraded water quality throughout the Basin.
- Recreational highlights include wildlife watching, hiking, fishing, birding, bicycling, golf, horseback riding, snowmobiling, skiing, camping, picnicking and water sports.
- State facilities such as the Kettle Moraine State Forest, Kohler- Andrae State Parks, Harrington Beach State Park, various state wildlife areas, and the Ice Age National Scenic Trail provide both satisfying and unique recreational experiences.
- The Basin includes the Southeast Glacial Plains and Northern Lake Michigan Ecological Landscapes.
- Some streams have the ability to support rout populations. Others have spring and fall runs of stocked steelhead and salmon. Fishing opportunities also exist in the rivers and harbors for northern pike, small mouth bass, and yellow perch.
- Wildlife include white- tailed deer, ring- necked pheasant, waterfowl, geese, gray and flying squirrels, raccoons, woodcock, a variety of hawks, songbirds, and shorebirds.
- Grasslands and barrens are promoted through prescribed burns and mowing.

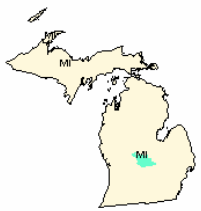
Watershed Activities / Concerns / Priorities

- The Wisconsin DNR divides the Sheboygan-Manitowoc watershed between the Sheboygan basin management area and the Lakeshore basin management area.
- Identified Environmental concerns for the Sheboygan River management area include:
  - Water quality problems are from in- place pollutants, runoff in urban areas, floodplain development, and agricultural practices.
  - Preservation of biodiversity and protection of endangered and threatened species, this is done by preserving their habitat.
  - A need for comprehensive approach to wetlands protection and restoration.
  - Educate people to help prevent the spread of exotic nuisance species, which can wreak havoc on ecosystem balance.
  - Monitoring of wildlife populations, water quality, and ecosystem function are needed to understand the status and trends of resources in the basin.
- Partnership Priorities for the Sheboygan River basin include:
  - Promote sound land use by helping communities identify; prime agricultural lands, environmental corridors and natural areas. Encourage re-development of brownfields and abandoned properties. Work with local communities in developing “smart growth” plans.
  - Conserve and restore riparian areas by conserving wetlands, enhancing sensitive habitat areas in lakes, and removing dams where feasible.
  - Acquire sufficient public lands to manage for multiple uses. Complete the Sheboygan Marsh Master Plan. Promote public land acquisitions that protect natural areas and provide recreational opportunities.
  - Improve water quality by encouraging best management practices in agricultural areas and promoting storm water management measures.
  - Enhance educational activities for forestry, air quality, water quality, wildlife management and healthy ecosystems.



Impaired (303d) Waters

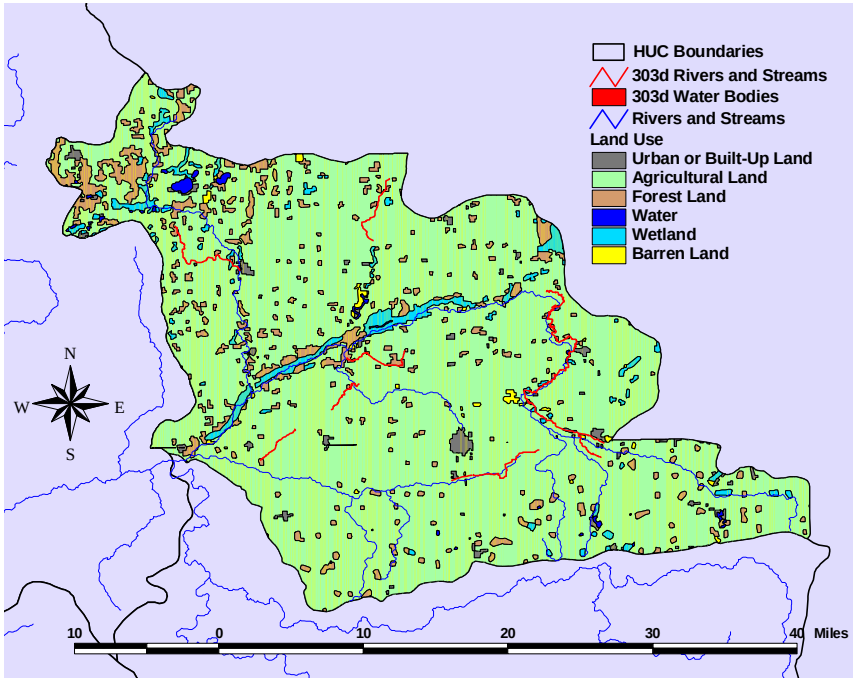
Waterbody Name	Impairment	Anticipated TMDL Submittal
Big Elkhart Lake	Mercury Fish Consumption Advisories	NA
Bullhead Lake	Mercury Fish Consumption Advisories	NA
Crystal Lake	Mercury Fish Consumption Advisories	NA
East Twin River Upstream To First Dam	PCB Fish Consumption Advisories	NA
Killsnake Creek	PCB Fish Consumption Advisories	NA
Manitowoc River (Mouth to N. Branch)	PCB Fish Consumption Advisories	NA
Manitowoc River (Mouth to N. Branch)	Loss Of Instream Habitat	NA
	Organic Enrichment/Low Dissolved Oxygen	
Manitowoc S. Branch	PCB Fish Consumption Advisories	NA
Pigeon Lake	Mercury Fish Consumption Advisories	NA
Pine Creek	PCB Fish Consumption Advisories	NA
Pine Creek	PCB Fish Consumption Advisories	NA
Sheboygan River	Fish Consumption Advisories	NA
	PCBs	
Sheboygan River Below Franklin Downstream To Sheboygan Falls	Mercury Fish Consumption Advisories	NA
	PCB Fish Consumption Advisories	
Silver Lake	Organic Enrichment/Low Dissolved Oxygen	NA
	Winter Kills	
Two Rivers Harbor	Aquatic Toxicity	NA
	Fish Consumption Advisories	
West Twin River	Nutrients	NA
	Fish Consumption Advisories	
	Sediment	



Maple River Watershed

Hydrologic Unit Code: 04050005

For more information see the USEPA website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04050005

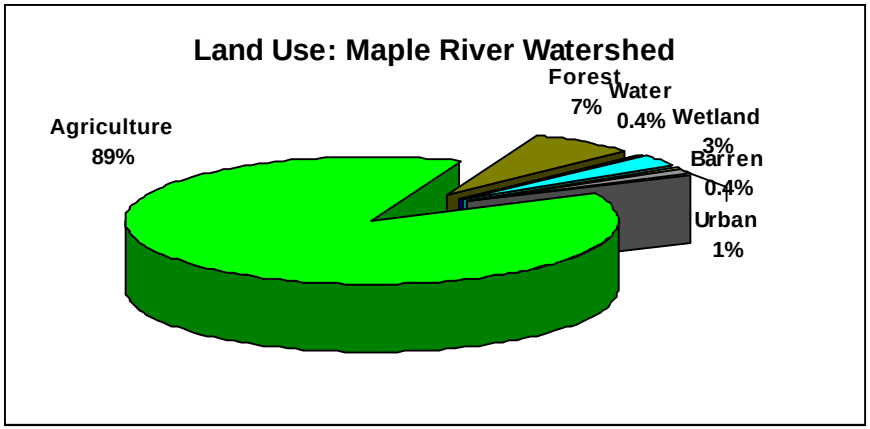


Watershed Overview / Ecology / Biodiversity

- The Maple River watershed covers over 936 square miles.
- The watershed has 404 miles of waterways that flow year round.
- The watershed is over 87 percent agricultural.
- The Maple River watershed feeds into the Lower Grand River.

Impaired (303d) Waters

Waterbody Name	Impairment	Anticipated TMDL Submittal
Alder Creek	Nutrients	2009
	Algae	2009
	Fish Community Rated Poor	2009
Butternut Creek	Pathogens	2006
	Bacterial Slimes	2006
	Fish Community Rated Poor	2006
Cox Drain	Nutrients	2009
	Algae	2009
	Fish Community Rated Poor	2009
	Macroinvertebrate Community Rated Poor	2009
Lost Creek	Nutrients	2009
	Algae	2009
	Bacterial Slimes	2009
	Fish Community Rated Poor	2009
	Macroinvertebrate Community Rated Poor	2009
Maple River	Nutrients	2009
	Nuisance Plant Growths	2009
Peet Creek	Nutrients	2009
	Nuisance Plant Growths	2009
Pine Creek(Watershed)	Nutrients	2007
	Nuisance Plant Growths	2007
Spaulding Creek	Nutrients	2004
	Algae	2004



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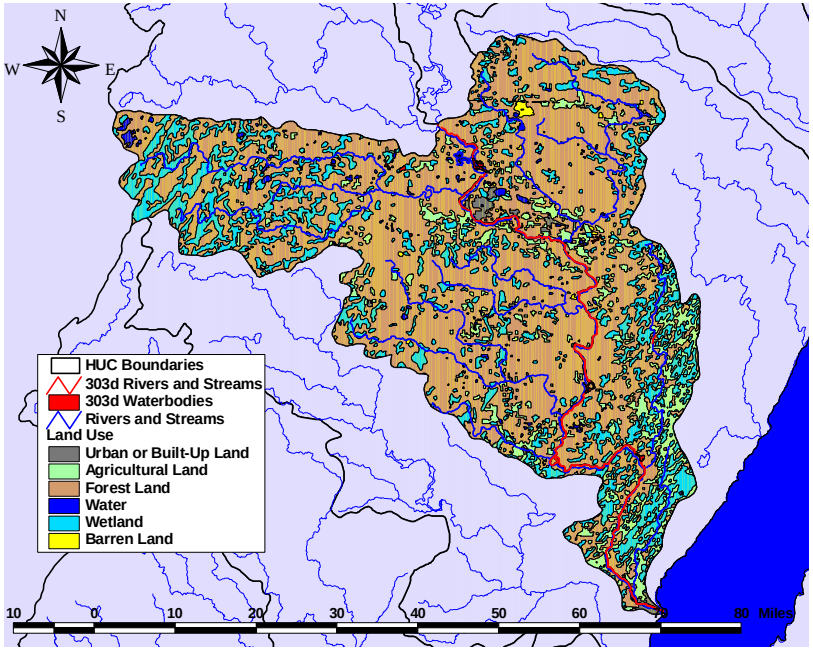
Menominee River Watershed

Hydrologic Unit Code: 04030108



Watershed Overview / Ecology / Biodiversity

- The Menominee River forms the boundary between Wisconsin and the Upper Peninsula of Michigan in Marinette, Florence, Forest, Vilias, Menominee, Dickinson, and Iron counties before draining its contents into Lake Michigan.
- The Menominee system is comprised of a number of large and small tributaries, the major tributaries being the Michigamme, Brule, Pike, Paint, Iron and Sturgeon Rivers. The Menominee originates at the confluence of the Michigamme and Brule Rivers and flows approximately 115 miles to the east towards the waters of Green Bay.
- The total basin covers approximately 4,070 square miles with 2,618 square miles located in Michigan and 1,452 square miles located in Wisconsin.
- The topography in the Menominee River basin was formed and heavily altered by periodic glaciation, the most recent of which was the Wisconsin period- 10,000-20,000 years ago.
- The region is characterized by lakes, glacial plains, end moraines, and poorly integrated east to west drainage. Bedrock outcrops and moraine deposits in the northern river basin create a more rugged terrain with a maximum elevation of 1300 feet, giving the basin a gradient of approximately five feet per mile. Due to extensive amount of glacial activity, the Menominee basin consists mostly of sand and gravel called outwash which is underlain by dolomite.
- Some of the developed areas are constructed on man-made soils that were deposited during the lumbering boom around the turn of the century. These man-made soils are composed of sawdust and waste wood that was discarded and then overlain with sand or topsoil as the building surface. These unstable soils have subjected many structures with excessive settling and alignment shifting.
- The lower reaches of the Menominee River have been subjected to a high amount of pollution from industries over the years and now this watershed is identified as an Area of Concern.

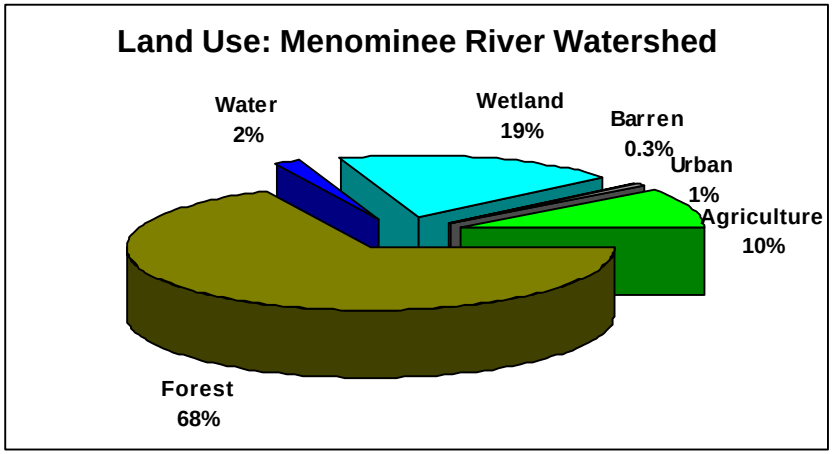
Approved Watershed Management Plans

- Fumee Creek - Dickinson Conservation District, http://www.dickinsoncd.org/
- Hamilton Creek - Dickinson Conservation District1
- Pine Creek (Dickinson Co), Dickinson Conservation District

For more information, see the USEPA website at http://cfpub.epa.gov/surf/huc.cfm?huc_code=04030108

Watershed Activities / Concerns / Priorities

- The Wisconsin portion of the watershed is part of the Wisconsin DNR's Upper Green Bay basin management area.
- The Pine Creek Watershed Project is an ongoing effort to address non-point source pollution throughout this beautiful 48,000 acre watershed in south central Dickinson County, Michigan. Based on previous EPA grants, which created a Pine Creek Watershed Management Plan and installed twelve Best Management Practices, the watershed received a Clean Michigan Initiative Grant (CMI) that targets sediment and nutrient pollution. The sources of these pollutants include road crossings, forest harvest practices, agriculture, cropland erosion, ORV trail crossing, and eroding streambanks. During the three-year CMI grant, which began in June 1999 and ends June 2003, approximately 20 Best Management Practices will be implemented, on a cost-share basis, with watershed landowner/partners. The watershed has also received funding from an EPA Section 319 grant to promote education about Best Management Practices and non-point source pollution control.
- The Fumee Creek Watershed Project was awarded a two year Environmental Protection Agency Section 319 Clean Water Act Grant and officially began the planning phase of the watershed project in October 2000. The Department of Environmental Quality administers the grant funding while Dickinson Conservation District staff directly manages the project on a local level. The overall goal of the Fumee Creek Watershed Project is to protect and restore Fumee Creek and the lakes and streams within the watershed from further degradation due to non-point sources of pollution. Addressing the water quality issues in this urban watershed will allow the watershed project to effectively maintain and/or improve the surface water quality within the watershed.
- The Hamilton Creek Watershed plan is a two year project funded by a 319 grant to reduce runoff in the watershed, thereby reducing sediment, nutrients and heavy metals associated with this process; reduce erosion in the watershed, thereby reducing sediment, nutrients and heavy metals associated with these processes; improve or restore natural habitat for fish and wildlife within the watershed; and to promote stewardship activities in the watershed. The project is planting native plants surrounding Lake Mary, surveying frog population, monitoring water quality, and mapping aquatic plants.
- Hannahville Indian Community has a water quality protection program for the reservation



Impaired (303d) Waters

Waterbody Name	Impairment	Anticipated TMDL Submittal
Hamilton Lake, MI	Mercury	2011
Menominee River, MI	Mercury	2010
	PCBs Fish Consumption Advisories	2010
Menominee River, MI	Pathogens	2009
Unnamed Tributary To Potterfield Creek, MI	Nutrients	2009
	Algae	2009
Emily Lake, WI	Mercury Fish Consumption Advisories	NA
Menominee R. In Marinette County, WI	Fish Consumption Advisories	NA
Sand Lake T38 R18e S21, WI	Mercury Fish Consumption Advisories	NA
Sealion Lake, WI	Mercury Fish Consumption Advisories	NA
Van Zile Lake,,WI	Mercury Fish Consumption Advisories	NA